

Lymphoma of Thyroid Gland- A Case Report

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Abstract:- Primary thyroid lymphoma is a very rare disease. It presents with rapidly growing mass in elderly patients. In this report we present a case of primary lymphoma of the thyroid gland in a 55 year old male. Fine Needle Aspiration Cytology (FNAC) was used as the first line of investigation in the diagnosis. Prognosis of thyroid lymphoma is excellent and chemotherapy for widespread lymphomas and radiotherapy with or without adjuvant chemotherapy for tumors localized to the gland, are the treatment of choice.

I. Introduction

Lymphoma of the thyroid may either originate in that site or affect the thyroid secondarily as a manifestation of systemic disease. Primary lymphoma of the thyroid gland represents 2-5% of extranodal Non-Hodgkin lymphomas, occurs approximately three times more frequently in women than in men and typically affects those over 50 years of age (median age, 60-65 years) (1,2,3,4). The majority of these lymphomas arise on a background of chronic lymphocytic / Hashimoto thyroiditis, the acquired auto-reactive lymphoid infiltrate, which is thought to provide the substrate for lymphoma development (5). Patient presents with rapidly growing neck mass, compression symptoms including dysphagia and hoarseness. It can also present with diffuse thyroid enlargement or may be accidentally discovered. Secondary involvement seen in 20% dying of generalized lymphoma, although usually does not produce clinical hypothyroidism. Regional lymph node enlargement can be seen in some cases.

Many early investigators, using previous classification schemes, considered most primary thyroid lymphomas to be of follicle centre cell origin (6,7,8). However, following the identification of mucosa associated lymphoid tissue (MALT) lymphoma (extranodal marginal zone lymphoma of MALT type) as a discrete clinicopathological entity (9,10), it is now recognized that most primary thyroid lymphomas are in fact MALT lymphomas with (approximately 35% of thyroid lymphomas) or without (approximately 20%) a diffuse large B cell lymphoma (DLBCL) component (11). Most thyroid lymphomas are of B-cell origin. Four main recurrent chromosomal translocations have been identified in MALT lymphomas: t(11;18)(q21;q21)(API2-MALT1) (12), t(1;14)(p22;q32)(BCL10-IGH) (13,14), t(14;18)(q32;q21)(IGH-MALT1) (15), and t(3;14)(p14;q32)(FOXP1-IGH) (16). These are found with varying frequencies in MALT lymphomas at different sites but, with the possible exception of t (3; 14) (p14; q32), occur very rarely or not at all in the thyroid gland (17, 18). Positive stains are- CD45, CD20 and keratin which highlight lymphoepithelial lesions. Thyroglobulin stains entrapped follicular epithelium.

Most thyroid lymphomas are of B-cell origin. Early recognition of this disease is important as it is curable if treated timely

II. Case report

A 55 year old male visited the OPD of J.A Hospital, Gwalior with complaint of rapidly enlarging neck mass which he observed since one month. The patient also complained of dysphagia. He was then referred to the cytopathology section of Department Of Pathology G.R medical college for FNAC. The swelling was 6x5 cms in dimensions and it moved with deglutition (Fig No.1). USG findings revealed - thyroid mass (? metastasis) with no lymphadenopathy. His peripheral smear was normal and no atypical/malignant cells were seen. Informed consent was taken from the patient and FNA was performed. Prepared smears were examined for proper diagnosis.

III. Materials and Methods

FNA was done using 22-23 gauge needles and 2-3 passes were made in the swelling. Material was aspirated, 2-4 slides were prepared, air dried and stained with May Grunwald Giemsa Stain (MGG). Dibutyl Phthalate Xylene (DPX) mountant was applied and after placing coverslip the slides were reviewed by experienced cytopathologists for final diagnosis.

IV. Results

The smears were highly cellular with almost monotonous population of non-cohesive atypical cells. The cells were large, with irregular vesicular nuclei and prominent nucleoli along with centrocyte like cells and lymphoglandular bodies (cytoplasmic fragmentation) in the background. Fig no. 2 & 3

Fig no. 1 - A 55 year male with neck mass.



Fig no.2 MGG stained smear showing atypical cells, centrocytes and lymphoglandular bodies [40x].

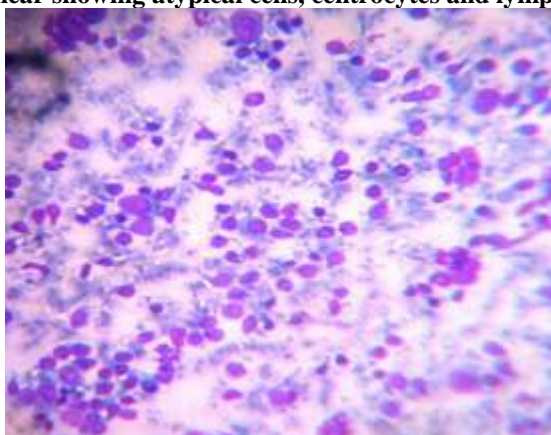
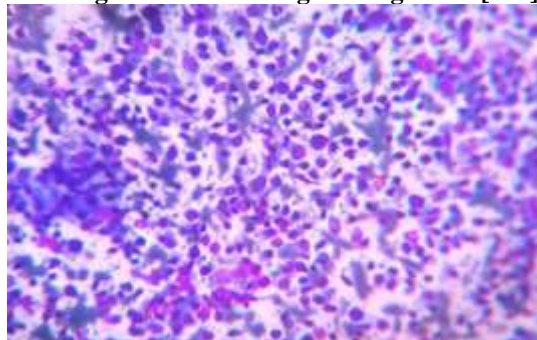


Fig no. 3 MGG stained smear showing high cellularity, atypical cells, centrocytes and lymphoglandular bodies against haemorrhagic background [40x].



VI. Discussion

Lymphoma, particularly Non Hodgkin's B-cell lymphomas accounts for 2-5% of primary thyroid malignancies and most commonly arises in the setting of Hashimoto's thyroiditis. Diffuse large B-cell lymphomas and extranodal marginal zone lymphomas of MALT type account for the majority of cases [19, 20,21].

The prognosis of thyroid lymphoma is excellent [21, 22, 23]. Lymphoma cells diffusely infiltrate the thyroid parenchyma and after involving the entire gland, affect the surrounding soft tissues. The lymphoid cells characteristically invade the lumina of thyroid follicles giving rise to lymphoepithelial lesions. Blood vessel wall

invasion may also be seen. NHL can be divided broadly into low grade and high grade types. At presentation the majority of cases are high grade diffuse large B-cell lymphomas often seen together with low grade marginal zone lymphoma. Low-grade NHL is small cell in type and predominantly marginal zone B-cell lymphomas (MALT type), though occasional primary follicular lymphomas are seen. In most cases a background of autoimmune thyroiditis can be seen.

Both thyroid lymphoma and anaplastic carcinoma of thyroid present with rapidly growing mass in elderly patients. Anaplastic carcinoma has high mortality. In this case FNAC was used as the first line of investigation for diagnosis.

Thyroid lymphoma present in elderly patients with rapidly growing mass and can lead to symptoms of tracheal or laryngeal compression. Extra thyroid extension is encountered at the time of initial presentation in most cases. Treatment is usually by radiotherapy and surgical decompression if necessary. The prognosis for localized disease is good with approximately 75% 10 year survival rate.

VII. Conclusion

Primary lymphoma of the thyroid gland constitutes about 5% of thyroid malignancies. Due to its size and rapidly growing nature it can be mistaken for anaplastic carcinoma. FNA is a reliable, safe and cost effective OPD procedure which helps in the preliminary/definitive diagnosis of even rare lesions which might mimic as a different entity.

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